Contents of Volume 9

NUMBER 1 JANUARY 1980

Editorial *1*

An Electronic Modification of an Automatic X-Ray Fluorescence Spectrometer with Sample Loader to Increase the Flexibility of the Measurement Sequence
T.K. SMITH *2*

Estimation of the Chemical Composition of Precipitated Phase by the Electron Beam Microanalytical Technique
S. CHATTERJI AND N. THAULOW *5*

The Suitability of Energy-dispersive Electron-microprobe Analysis for the Investigation of Stainless Steels
A.C. DUNHAM AND F.C.F. WILKINSON *8*

Multielement X-Ray Fluorescence Spectrometry of Solutions
B.W. BUDESINSKY *13*

Analysis of the Nb–Ge Content in Thin Films by Quantitative X-Ray Fluorescence
L. BERGEL AND F.J. CADIEU *19*

Studies of the Non-linear Rise in Intensity of X-Ray Lines
K. DAS GUPTA, A.A. BAHGAT AND P.J. SEIBT *25*

Photon-induced X-Ray Fluorescence Determination of Platinum in Reforming Catalysts and Doped Venezuelan Laterites
J.J. LaBRECQUE *28*

Kβ/Kα Ratios in Energy-dispersive X-Ray Emission Analysis
MD. R. KHAN AND M. KARIMI *32*

A New System for On-line X-Ray Topography
N.I. KOMYAK, V.G. LUTSAU, V.P. EFANOV AND S.A. IVANOV *36*

NUMBER 2 APRIL 1980

Editorial *39*

X-Ray Fluorescence Investigation of the Shroud of Turin
R.A. MORRIS, L.A. SCHWALBE AND J.R. LONDON *40*

A Peak Integration Method for Acquiring X-Ray Data for On-line Microprobe Analysis
A.K. FERGUSON AND D.K.B. SEWELL *48*

Radiometric Diameter Concept and Exact Intensities for Spherical Particles in X-Ray Fluorescence Analysis
A. MARKOWICZ, P. VAN DYCK AND R. VAN GRIEKEN *52*

X-Ray Fluorescence Analysis using Intensive Linear Polarized Monochromatic X-Rays after Bragg Reflection
P. WOBRAUSCHEK AND H. AIGINGER *57*

X-Ray Diffractometry of Airborne Particulates Deposited on Membrane Filters
B.H. O'CONNOR AND J.M. JAKLEVIC *60*

Determination of the Thickness of SiO_2 Layers on Si by X-Ray Spectrometry
M.F. EBEL, H. EBEL AND J. WERNISCH *66*

Automatic Absorption Correction in X-Ray Fluorescence Analysis of Intermediate Thickness Samples using a Dual External Reference Signal
P. VAN DYCK, A. MARKOWICZ AND R. VAN GRIEKEN *70*

X-Ray K Absorption Studies on some 1,10 Phenanthroline-based Cobalt Complexes
A. KUMAR, A.N. NIGAM AND B.D. SHRIVASTAVA *77*

Multilayer X-Ray Spectrometry in the 20–80 Å Region: A Molecular Orbital Analysis of CO and CO_2 in the Gas and Solid States
R.C.C. PERERA AND B.L. HENKE *81*

Optimization of Trace Analysis by PIXE: Angular Dependence of the Background Continuum
M.J. RENAN *90*

© Heyden & Son Ltd, 1980

CONTENTS OF VOLUME 9

NUMBER 3 JULY 1980

Editorial *95*

The Derivation of Influence Coefficients from Experimental and Calculated XRF Data
G.T. CHAMBERLAIN *96*

The Computer Control of an Electron Probe Microanalyser Using CAMAC and CORAL-66
N. SWINDELLS *101*

Computer Control of the Electron Probe Microanalyser: The Control System and Some Applications
H.E. BISHOP AND D.M. POOLE *110*

The Discrimination and Classification of Small Fragments of Window and Non-window Glasses Using Energy-dispersive X-Ray Fluorescence Spectrometry
R.J. DUDLEY, C.R. HOWDEN, T.J. TAYLOR AND K.W. SMALLDON *119*

A Method for Isotope-excited X-Ray Fluorescence Analysis of Thick Samples
S. DATTA AND S. SADASIVAN *123*

An In-depth Study of Energy-dispersive X-Ray Spectra
P. VAN ESPEN, H. NULLENS AND F. ADAMS *126*

Zur Quantitativen Mikrosondenanalyse von geologischen Proben Mittels Kombiniertem EDS/WDS
H. SCHWANDER UND F. GLOOR *134*

X-Ray Fluorescence Analysis Without Standards of Small Particles Extracted from Super-alloys
K. OHNO, J. FUJIWARA AND I. MORIMOTO *138*

The Influence of Tube Voltage Rectification in X-Ray Fluorescence Analysis Without Standards
M. MANTLER *143*

X-Ray Fluorescence Analysis Without Standards
M. MANTLER AND H. EBEL *146*

An X-Ray Source with Focal Spot Scanning
B.F. BELYAEV, V.A. GUSHCHIN, S.A. IVANOV AND L.F. FEDOROVA *150*

NUMBER 4 OCTOBER 1980

Editorial *153*

Correction for Matrix Effects in X-Ray Fluorescence Analysis of Finite Media
Y. BEN-HAIM *154*

X-Ray Emission Intensities of Radioisotopes Produced by Neutron Activation
B.S. NEGI AND S. SADASIVAN *159*

Qualitative and Quantitative Analysis of Technical Aluminium Phosphide
M. MANTLER AND J. WERNISCH *163*

Quantitative Röntgenfluoreszenzanalyse mit Hilfe des linearen und quadratischen Hybridmodells
H. KLOYBER, H. EBEL, M. MANTLER UND S. KOITZ *170*

Relationship between the Reciprocal of Analyte-line Intensity and the Reciprocal of Weight Fraction and its Utilization in X-Ray Fluorescence Analysis
E. ASADA, S. MATSUDA, Y. SUZUKI, M. NAKAMURA AND T. TONE *176*

Recent Developments in Detectors for Process Control X-Ray Sensors
K.G. CARR-BRION *184*

Space Resolved X-Ray Spectroscopy for Tokamak
B.S. FRAENKEL *189*

A Practical Relation between Atomic Numbers and Alpha Coefficients
G.R. LACHANCE *195*

Analysis of Geological Materials Using an Automated X-Ray Fluorescence System
B. SCHROEDER, G. THOMPSON, M. SULANOWSKA AND J.N. LUDDEN *198*

Multielement Thin Film Standards for XRF Analysis
J. BILLIET, R. DAMS AND J. HOSTE *206*

© Heyden & Son Ltd, 1980

Author Index to Volume 9

Adams, F. *126*
Aiginger, H. *57*
Asada, E. *176*

Bahgat, A.A. *25*
Belyaev, B.F. *150*
Ben-Haim, Y. *154*
Bergel, L. *19*
Billiet, J. *206*
Bishop, H.E. *110*
Budesinsky, B.W. *13*

Cadieu, F.J. *19*
Carr-Brion, K.G. *184*
Chamberlain, G.T. *96*
Chatterji, S. *5*

Dams, R. *206*
Das Gupta, K. *25*
Datta, S. *123*
Dudley, R.J. *119*
Dunham, A.C. *8*

Ebel, H. *66, 146, 170*
Ebel, M.F. *66*
Efanov, V.P. *36*

Fedorova, L.F. *150*
Ferguson, A.K. *48*
Fraenkel, B.S. *189*
Fujiwara, J. *138*

Gloor, F. *134*
Gushchin, V.A. *150*

Henke, B.L. *81*
Hoste, J. *206*
Howden, C.R. *119*

Ivanov, S.A. *36, 150*

Jaklevic, J.M. *60*

Karimi, M. *32*
Khan, Md.R. *32*
Kloyber, H. *170*
Koitz, S. *170*
Komyak, N.I. *36*
Kumar, A. *77*

LaBrecque, J.J. *28*
Lachance, G.R. *195*
London, J.R. *40*
Ludden, J.N. *198*
Lutsau, V.G. *36*

Mantler, M. *143, 146, 163, 170*
Markowicz, A. *52, 70*
Matsuda, S. *176*
Morimoto, I. *138*
Morris, R.A. *40*

Nakamura, M. *176*
Negi, B.S. *159*
Nigam, A.N. *77*
Nullens, H. *126*

O'Connor, B.H. *60*
Ohno, K. *138*

Perera, R.C.C. *81*
Poole, D.M. *110*

Renan, M.J. *90*

Sadasivan, S. *123, 159*
Schroeder, B. *198*
Schwalbe, L.A. *40*
Schwander, H. *134*
Seibt, P.J. *25*
Sewell, D.K.B. *48*
Shrivastava, B.D. *77*
Smalldon, K.W. *119*
Smith, T.K. *2*
Sulanowska, M. *198*
Suzuki, Y. *176*
Swindells, N. *101*

Taylor, T.J. *119*
Thaulow, N. *5*
Thompson, G. *198*
Tone, T. *176*

Van Dyck, P. *52, 70*
Van Espen, P. *126*
Van Grieken, R. *52, 70*

Wernisch, J. *66, 163*
Wilkinson, F.C.F. *8*
Wobrauschek, P. *57*

© Heyden & Son Ltd, 1980

Heyden & Son Ltd, Spectrum House, Hillview Gardens, London NW4 2JQ, UK (Tel: 01-203 5171; Telex: 28303)